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EXAMINER

MULLER, BRYAN R

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/754,390
Filing Date: January 09, 2004
Appellant(s): PRASAD ET AL.

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For Appellant

SUPPLEMENTAL EXAMINER'S ANSWER

This is in response to the reply brief filed 8/12/2008 further arguing the Examiner's
Answer mailed 7/9/2008.

Response to Argument

The appellant continues to argue the rejection of claims 1-7 and 16-20 over Reinhardt in view of Lakes and Furukawa. The appellant argues that the Examiner has not considered the Furukawa reference *as a whole* and has ignored the disclosure of Furukawa that appellant believes teaches away from the use of porous polishing pads. The appellant states that Furukawa teaches that *all* porous material – regardless of the material's Poisson's ratio – has inherent structural limitations that prevent it from satisfying the three requirements for polishing pads including abrasion resistance, and cites paragraph 12 of Furukawa as support. However, the Examiner first reasserts that the Furukawa reference is merely provided as extrinsic evidence to support the Examiner's statement that abrasion resistance is a desired property for polishing pads. However, the Examiner does not rely in any way on the teachings of Furukawa relative to specific materials or structure for the polishing pads. Further, the appellant's arguments are not supported by Furukawa's disclosure, specifically in paragraph 12. Paragraph 12 of Furukawa states:

However, since it is difficult to secure uniformity in reaction temperature and uniformity in foaming factor throughout the entire reaction vessel in the production of said polishing pads, it is difficult to produce products that are uniform throughout the polishing pads. Also since slurry components or products generated during polishing tend to precipitate in the above hemispheric recesses in said pads, they have a drawback of clogging by precipitates in a relatively short period of time. Thus, in order to maintain a high polishing speed, it is necessary to remove the clogged region on the surface of the polishing pad with the dresser frequently. Thus, they have problems that long dressing time in a total during polishing is required and that the polishing pad has a short life. Thus, the polishing pads

Art Unit: 3727

comprising such polyurethane foams have not always satisfied the above three requirements for the polishing pad (thus, a high polishing speed, abrasion resistance, planarizing ability).

Thus, the disclosure of Furukawa merely states that porous polishing pads **may not** always satisfy the three requirements, but does not teach that *all* porous pads fail to satisfy the requirements, as stated by the appellant. The disclosure of Furukawa also has no mention of Poisson's ratio, as stated by the appellant and thus, does not teach away from porous polishing pads with a negative Poisson's ratio. The Examiner feels that the above passage from the Furukawa reference actually provides further motivation to modify the porous materials being discussed to have improved properties including abrasion resistance, which may be done by forming the pads with a negative Poisson's ratio, as taught by Lakes and as applied in the rejection of claims 1-7 and 16-20 over Reinhardt in view of Lakes and Furukawa, as discussed in the Final Rejection mailed 1/3/2008 and the Examiner's Answer mailed 7/9/2008.

Therefore, the Examiner hereby maintains the rejection and disagrees with the appellant that the Furukawa reference, when considered as a whole, "teaches away" from using porous polishing pads, specifically porous polishing pads having negative Poisson's ratio.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Bryan R Muller/
Examiner, Art Unit 3727
11/17/2008

Art Unit: 3727

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